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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,707	04/16/2004	Sung Ro Lee	U 015149-5	9194
Ladas & Parry 26 West 61st Street New York, NY 10023			EXAMINER POPOVIC, BOJAN	
			ART UNIT 3709	PAPER NUMBER
			MAIL DATE 05/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/825,707

Applicant(s)

LEE, SUNG RO

Examiner

Bojan Popovic

Art Unit

3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/16/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The specification refers to the expanding part (Page 8, Lines 21-24) and the inlet part (Page 7, Lines 17-18) as being tapered in a flowing direction of the refrigerant. It is unclear whether those features are tapered in or out with respect to the flow of the refrigerant. One of ordinary skill in the art could not reasonably appraise the orientation of the tapered sections with respect to the flow of the refrigerant.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: Claim 1 teaches an "enlarged diameter" in line 21. It is unclear what the "enlarged diameter" of the expanding part is being compared to. The term specifies that the diameter of the expanding part of the refrigerant guide pipe is enlarged; however, it is unclear as to which part of the muffler is the expanding part being compared to. The examiner suggests that the claim be changed to clearly specify that the expanding part has an enlarged diameter compared to the refrigerant guide pipe. Appropriate correction is advised.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Harper et al. (U.S. Patent 5,496,156).

Regarding Claim 1, the Harper et al. reference teaches a hermetic compressor comprising a hermetic casing (Col. 3, Line 1), a compressing unit, an inlet pipe (Col. 4, Lines 17-19) and a suction muffler (Col. 3, Line 42). Although the reference does not specifically teach a compressing unit, it does disclose a cylinder block defining a compression chamber wherein a piston is installed. Additionally, the Harper et al. reference teaches a cylinder head mounted to the cylinder block wherein suction and discharge chambers are located (Col. 3, Lines 17-30). It is readily apparent to one of ordinary skill in the art that the above named components disclosed by the Harper et al. reference constitute a compressing unit.

The Harper et al. reference also teaches a muffler comprising a muffler housing (Col. 3, Line 45-46) which defines an internal volume (Col. 4, Lines 2-5). Although a resonance chamber is not explicitly defined, it is clear that an internal cavity of a muffling device functions as a resonance chamber. Additionally, the Harper et al. reference discloses an inlet part having an inlet port that is spaced apart from the inlet pipe (Col. 4, Lines 15-20). A refrigerant guide pipe, having an expanding part at the

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inlet, is also taught by the Harper et al. reference (Col. 4, Lines 24-37). The above described features of the Harper et al. reference are illustrated in Figures 1-3.

Regarding Claim 2, the Harper et al. reference teaches a rim on the inlet section of the refrigerant guide pipe. From Figures 2 and 3 of the Harper et al. reference, it is apparent that the rim (108), located on the refrigerant inlet pipe (106), is tapered. Although the reference does not explicitly teach that the rim is tapered in the direction of the refrigerant flow, from Figure 2 and 3 illustrations, it is apparent that the rim taper is in the direction of the refrigerant flow.

Regarding Claim 3, the Harper et al. reference teaches a tapered inlet port. Referring to Figure 2 of the Harper et al. reference, it is apparent that the inlet port is tapered in the flowing direction of the refrigerant which is drawn into the muffler casing.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim (U.S. Patent 6,149,402) and Lee (U.S. Patent 5,888,055) disclose compressor mufflers having tapered sections of the refrigerant guide pipe and inlet ports.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bojan Popovic whose telephone number is (571) 270-1889. The examiner can normally be reached on Mon-Fri, 8:00AM-5:00PM EST, Alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jackson can be reached on (571) 272-4697. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*BP*

BP

4/3/07

GARY JACKSON  
SUPERVISORY PATENT EXAMINER

*Gary Jackson* 4/20/07